

Applicant : Michael Burnett et al.

Serial No. : 09/177,837

Filed : October 23, 1998

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Attorney's Docket No.: 00167-318001 / 0231-0258



REMARKS

We have addressed the Examiner's objections to the drawings and specification in the proposed drawing corrections. Upon approval of the requested change, and allowance of the application, we will provide formal drawings.

The Examiner rejected claims 1-4, and 6 as anticipated by the Tamura patent (U.S. 5,959,670). We submit, however, that Tamura does not describe or suggest image size detection circuitry, much less image size detection circuitry for determining an actual image area within a total image area of the image sensor, and generating a control signal, based on the actual image area, for controlling the electronic shutter, as recited in claims 1 and 7.

Tamura does not provide circuitry for determining an actual image area within a total image area of the image sensor because he uses an entirely different scheme for performing exposure control. Specifically and with reference to Fig. 1, Tamura describes an image pickup apparatus that uses zoom key information provided by the external manipulation of a zoom key (not shown) to provide exposure control (see col. 5, lines 33-38). The zoom key information is provided to an electronic-zoom magnification control part 16b, which varies the read-out area of the image plane. Thus, the region containing image information is determined not from any circuitry for determining an actual image area within a total image area, but from external manipulation of a zoom key. Although the video image (output from AGC circuit 7) is used as part of the system control circuit 16, it is not used to determine the size of the image. Tamura states:

The system control circuit 16 also includes intermittent data correcting parts 16g and 16h for correcting the respective output data of the comparing circuit 13 and the integrating circuit 15 in accordance with the image magnification set by the electronic-zoom magnification control part 16b and correcting an exposure control error resulting from the simultaneous presence of a portion which contains image information and a portion which contains no image information. (col. 5, lines 51-60, emphasis added)

Thus, it is clear from a thorough reading of the Tamura patent that Tamura does not provide image size detection circuitry for determining an actual image area within a total image

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area of the image sensor, and generating a control signal, based on the actual image area, for controlling the electronic shutter, as recited in claims 1 and 7.

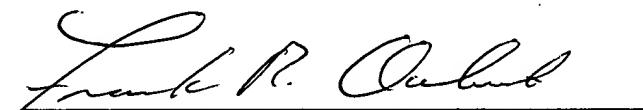
The examiner also rejected claims 13-15, and 17 as anticipated by Tamura. We submit, however, that Tamura fails to disclose a method of controlling an electronic shutter used with an image sensor of an electronic camera, the method including determining, in response to the electrical signals, an actual image area within a total image area of the image sensor, as recited in claim 13. As discussed above, Tamura says nothing about determining the size of an actual image area within a total image area of the image sensor. For at least this reason, we submit that claim 13 is patentable over the cited reference.

The Examiner also rejected dependent claims 5, 7-12, and 16 as being unpatentable over Tamura in view of one or more of Kyuma and/or Suzuki. We submit that these claims are patentable for at least the same reasons that independent claims 1, 7 and 13 are patentable.

Attached is a marked-up version of the changes being made by the current amendment.

Applicant asks that all claims be allowed. Enclosed is a Petition for Three Month Extension of Time with a check for \$920 for the required fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,



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Approved
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FIG. 2

